BOARD OF MINERALS AND ENVIRONMENT
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

Permit No. 98-22

PERMIT TO OPERATE A RESOURCE RECOVERY FACILITY UNDER THE SOUTH DAKOTA AIR QUALITY AND WASTE MANAGEMENT PROGRAMS

APPLICANT: T & R Service Company
PO Box 197
Colman, SD 57017

PERMIT CONTACT: Jeff Jung
(605) 534-3571

ISSUE DATE: Draft

EXPIRATION DATE: Draft

GENERAL FACILITY DESCRIPTION

T & R Service Company repairs and salvages mineral oil transformers that contained transformer oil with less than 500 parts per million (ppm) polychlorinated biphenyls, hereinafter "PCBs." Repaired transformers are repainted and refilled with new mineral oil dielectric. T & R Service Company also operates a transformer mineral oil testing laboratory and salvages copper, aluminum and steel metals that are shipped for smelter processing.

POPULATION SERVED

Municipal electric utilities, rural electric power cooperatives, electric utilities, and other entities which use electrical equipment containing mineral oil

TYPE OF PERMIT

Minor air quality operating permit

Type III solid waste operating permit -- Maximum permitted tonnage: 4,999 tons per year.

FACILITY LEGAL DESCRIPTION

Parcel No.1

Thompson & Ross Addition to the City of Colman, located in the Southwest ¼ of Section 15, Township 106 North, Range 50 West of the 5th principal meridian, Moody County, South Dakota, EXCEPT the south 620 feet thereof. (The south and west lines of Thompson and Ross Third Addition being the south and west lines of said Section 15.)

Together With

The south 620 feet of the west 730 feet of Thompson and Ross Third Addition to the City of Colman, located in the SW1/4 of Section 15, Township 106 north, Range 50 west of the fifth principal meridian, Moody County, South Dakota.

Together With

All of the former Chicago, Milwaukee, St. Paul and Pacific Railroad Company's right-of-way lying adjacent to Thompson and Ross Third Addition to the City of Colman, located in the SW1/4 of Section 15, Township 106 north, Range 50 west of the fifth principal meridian, Moody County, South Dakota.

Parcel No.2

Lot A and Lot B in Thompson and Ross Third Addition to the City of Colman, Moody County, South Dakota.

Together With

The east 63.7 feet of Lot 1A and all of Lot 1B and Lot 3 in Thompson and Ross Second Addition to the City of Colman, Moody County, South Dakota.

Together With

Lot 4 in Thompson and Ross Second Addition to the City of Colman, Moody County, South Dakota.

Together With

The south 55 feet of the east 487.32 feet of Thompson and Ross Third Addition to Colman, except Lot H-1 of Thompson and Ross Third Addition, in Moody County, South Dakota, and the North 132.86 feet of the south 187.86 feet of the east 13.0 feet of Thompson and Ross Third Addition to Colman, except Lot H-1 of Thompson and Ross Third Addition, in Moody County, South Dakota.

Location: West Highway 34
Colman, South Dakota

In consideration of information contained within the applications and supplements, the Secretary of the South Dakota Department of Environment and Natural Resources hereby issues T & R Service Company a multimedia permit to operate a resource recovery facility. This permit is issued pursuant to Chapter 34A-1-21 and 34A-6-1.13 of the South Dakota Codified Laws (SDCL).

Steven M. Pirner, Secretary
Department of Environment and Natural Resources

TABLE OF CONTENTS

TABLE OF CONTENTS

1.0 STANDARD CONDITIONS

1.1 Operation of source. In accordance with Administrative Rules of South Dakota (ARSD) 74:36:04:15(9)**,** the owner or operator shall construct and operate the units, controls, and processes as described in Table 1-1 and in accordance with the statements, representations, and supporting data contained in the complete permit application submitted December 15, 2009 (air quality) and December 14, 2009 (solid waste), unless modified by the conditions of this permit. Except as otherwise provided herein, the control device in Table 1-1 shall be operated in a manner that achieves compliance with the conditions of this permit at all times. The application consists of the air quality and solid waste application forms, supporting data, and supplementary correspondence. If the owner or operator becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in an application, such information shall be promptly submitted.

Table 1-1 – Description of Permitted Units, Operations, and Processes

Unit	Description	Maximum Operating Rate	Control Device
#1	1990 Al-Jon United (model #W-3000-HT) multi chambered wire reclamation furnace. The unit is used to process drained electrical equipment that contained transformer oil with less than 500 parts per million polychlorinated biphenyls (PCBs).	10,000 pounds per batch. Each batch takes approximately three hours to complete	The wire reclamation furnace is equipped with an afterburner fired with transformer oil containing PCBs less than fifty parts per million and distillate oil.
#2	1989 Dayton (model #3C412) paint booth. The unit is used to paint rebuilt transformers using an airless electrostatic spraying method.	Not applicable	The paint booth is equipped with 20 polyester fiber filter pads with a dimension of 20 inches by 20 inches by two inches.

1.2 Duty to comply. In accordance with ARSD 74:36:04:15(12) and South Dakota Codified Laws (SDCL) 34A-6-1.4, 34A-6-1.21, 34A-6-1.22, and 34A-6-1.31, the owner or operator shall comply with the conditions of this permit. An owner or operator who knowingly makes a false statement in any record or report or who falsifies, tampers with, or renders inaccurate, any monitoring device or method is in violation of this permit. A violation of any condition in this permit is grounds for enforcement, reopening this permit, permit termination, or denial of a permit renewal application. The owner or operator, in an enforcement action, cannot use the defense that it would have been necessary to cease or reduce the permitted activity to maintain compliance. This permit does not convey any property rights or any exclusive privilege. The owner or operator shall provide any information requested by the Secretary to determine compliance or whether cause exists for reopening or terminating this permit.

1.3 Property rights or exclusive privileges. In accordance with ARSD 74:36:04:15(12), the State's issuance of this permit, adoption of design criteria, and approval of plans and specifications does not convey any property rights of any sort, any exclusive privileges, any authorization to damage, injure or use any private property, any authority to invade personal rights, any authority to violate federal, state or local laws or regulations, or any taking, condemnation or use of eminent domain against any property owned by third parties. The State does not warrant that the owner's or operator's compliance with this permit, design criteria, approved plans and specifications, and operation under this permit, will not cause damage, injury or use of private property, an invasion of personal rights, or violation of federal, state or local laws or regulations. The owner or operator is solely and severally liable for all damage, injury or use of private property, invasion of personal rights, infringement of federal, state or local laws and regulations, or taking or condemnation of property owned by third parties, which may result from actions taken under the permit.

1.4 Penalty for violating a permit condition. In accordance with SDCL 34A-1 and 34A-6, a violation of a permit condition may subject the owner or operator to civil or criminal prosecution, a state penalty of not more than $10,000 per day per violation, injunctive action, administrative permit action, and other remedies as provided by law.

1.5 Inspection and entry. In accordance with SDCL 34A-1-41, 34A-6-1.20, and 34A-11-16, the owner or operator shall allow the Secretary to:

1. Enter the premises where a regulated activity is located or where pertinent records are stored;
2. Have access to and copy any records that are required under this permit;
3. Inspect operations regulated under this permit; and/or
4. Sample or monitor any substances or parameters for the purpose of assuring compliance.

1.6 Severability. In accordance with ARSD 74:36:04:15(11), any portion of this permit that is void or challenged shall not affect the validity of the remaining permit requirements.

1.7 Permit termination, modification, or revocation. In accordance with ARSD 74:36:04:27 and 74:27:08:23, the Secretary may recommend that the Board of Minerals and Environment terminate, modify, or revoke this permit for violations of SDCL 34A-1, SDCL 34A-6, the federal Clean Air Act, ARSD 74:36, ARSD 74:27, or for nonpayment of any outstanding enforcement penalty.

2.0 PERMIT AMENDMENT AND MODIFICATION CONDITIONS

2.1 Permit flexibility. In accordance with ARSD 74:36:04:18, the owner or operator shall have the flexibility to make changes to the source during the term of this permit. The owner or operator shall provide the Secretary written notice at least seven days in advance of the proposed change. The written notice shall include a brief description of the change, the date on which the change is to occur, any change in emissions, the proposed changes to the permit, and whether the

requested revisions are for an administrative permit amendment, minor permit amendment, or permit modification.

The Secretary will notify the owner or operator whether the change is an administrative permit amendment, a minor permit amendment, or a permit modification. A proposed change that is considered an administrative permit amendment or a minor permit amendment can be completed immediately after the Secretary receives the written notification. The owner or operator must comply with both the applicable requirements governing the change and the proposed permit terms and conditions until the Secretary takes final action on the proposed change.

A proposed change that is considered a modification can not be constructed until the Secretary takes final action on the proposed change. Permit modifications are subject to the same procedural requirements, including public comment, as the original permit issuance except that the required review shall cover only the proposed changes.

2.2 Administrative permit amendment. In accordance with ARSD 74:36:04:20, the Secretary has 15 days from receipt of a written notice to verify that the proposed change is an administrative permit amendment. As provided in ASRD 74:36:01:03, the Secretary considers a proposed change an administrative permit amendment if the proposed change accomplishes one of the following:

1. Corrects typographical errors;
2. Changes the name, address, or phone number of any person identified in this permit or provides a similar minor administrative change at the source;
3. Requires more frequent monitoring or reporting by the source; or
4. Any other change that the Secretary determines to be similar to those requirements in this condition.

2.3 Minor permit amendment. In accordance with ARSD 74:36:04:20.04, the Secretary has 90 days from receipt of a written notice to take final action on a minor permit amendment. Final action consists of issuing or denying a minor permit amendment or determining that the proposed change is a permit modification. As provided in ASRD 74:36:04:20:02, the Secretary considers a proposed change to be a minor permit amendment if the proposed change:

1. Does not violate any applicable requirements;
2. Does not involve significant changes to existing monitoring, reporting, or record keeping requirements;
3. Does not require or change a case-by-case determination of an emission limit or other standard, a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis; or
4. Does not seek to establish or change a permit term or condition for which the source has assumed to avoid an applicable requirement, a federally enforceable emission cap, or an alternative emission limit. An alternative emission limit is approved pursuant to regulations promulgated under section 112(i)(5) of the federal Clean Air Act.

2.4 Permit modification. In accordance with ARSD 74:36:04:21 and 74:27:09:05, an owner or operator may apply for a permit modification. A permit modification is defined in ARSD 74:36:01:10 as a physical change in or change in the operation of a source that results in at least one of the following:

1. An increase in the amount of an air pollutant emitted by the source or results in the emission of an air pollutant not previously emitted;
2. A significant change to existing monitoring, reporting, or record keeping requirements in the permit;
3. The change requires or changes a case-by-case determination of an emission limit or other standard, a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis; or
4. The change seeks to establish or change a permit term or condition for which there is a corresponding underlying applicable requirement that the source has assumed to avoid an applicable requirement, a federally enforceable emissions cap assumed to avoid classification as a modification under a provision of the Title I of the Clean Air Act, or an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Clean Air Act.

Permit modifications are subject to the same procedural requirements, including public comment, as the original permit issuance except that the required review shall cover only the proposed changes.

2.5 Permit revision. In accordance with ARSD 74:36:04:23 and 74:27:09:05, the Secretary may reopen and revise this permit to meet requirements of SDCL 34A-1, SDCL 34A-6, or the federal Clean Air Act. In accordance with ARSD 74:36:04:24, the Secretary shall notify the owner or operator at least 30 days before reopening this permit. The 30-day period may be less in the case of an emergency.

2.6 Testing new fuels or raw materials. In accordance with ARSD 74:36:11:04, an owner or operator may request permission to test a new fuel or raw material to determine if it is compatible with existing equipment before requesting a permit amendment or modification. A complete test proposal shall consist of the following:

1. A written proposal that describes the new fuel or raw material, operating parameters, and parameters that will be monitored and any testing associated with air pollutant emissions during the test;
2. An estimate of the type and amount of regulated air pollutant emissions that will result from the proposed change; and
3. The proposed schedule for conducting the test.

The Secretary shall approve, conditionally approve, or deny in writing the test proposal within 45 days after receiving a complete proposal. Approval conditions may include changing the test

schedule or pollutant sampling and analysis methods. Pollutant sampling and analysis methods may include, but are not limited to performance testing, visible emission evaluation, fuel analysis, dispersion modeling, and monitoring of raw material or fuel rates.

If the Secretary determines that the proposed change will result in an increase in the emission of a regulated air pollutant or result in the emission of an additional regulated air pollutant, the Secretary shall give public notice of the proposed test for 30 days. The Secretary shall consider all comments received during the 30-day public comment period before making a final decision on the test.

The Secretary will not approve a test if the test would cause or contribute to a violation of a national ambient air quality standard.

2.7 Permit transfer. In accordance with ARSD 74:27:08:21, a new owner shall submit a new certification of applicant form and a written agreement containing a specific date for transfer of operating permit responsibility, coverage, and liability. A permit transfer to a new owner is subject to the same procedural requirements, including public comment, as the original permit issuance, except that the required review and recommendation shall cover only the ownership transfer.

3.0 PERMIT RENEWAL REQUIREMENTS

3.1 Permit effective. In accordance with ARSD 74:36:04:05 and SDCL 34A-6-1.16, this permit shall expire five years from date of issuance unless reopened or terminated for cause.

3.2 Permit renewal. In accordance with ARSD 74:36:04:06 and 74:27:08:11, the owner or operator shall submit an application for a permit renewal at least 90 days before the date of permit expiration if the owner or operator wishes to continue an activity regulated by this permit. The current permit shall not expire and shall remain in effect until the Secretary takes final action on the timely permit renewal application.

3.3 Permit expiration. In accordance with ARSD 74:36:04:16, permit expiration terminates the owner's or operator's right to operate any unit covered by this permit.

4.0 RECORDKEEPING AND REPORTING REQUIREMENTS

4.1 Recordkeeping and reporting. In accordance with ARSD 74:36:04:15(10) and 74:27:13:22, the owner or operator shall maintain all monitoring data, records, reports, and pertinent information specified by this permit for five years from the date of sample, measurement, report, or application. The records shall be maintained on site for the first two years and may be maintained off site for the last three years. All records must be made available to the Secretary for inspection. All notifications and reports shall be submitted to the following address:

PMB 2020 - South Dakota Department of Environment and Natural Resources
Air Quality Program
523 E. Capitol, Joe Foss Building
Pierre, SD 57501-3181

4.2 Signatory requirements. In accordance with ARSD 74:36:04:07 and ARSD 74:27:09:01, all applications submitted to the Secretary shall be signed and certified by a responsible official. A responsible official is a responsible corporate officer for a corporation or a general partner or the proprietor for a partnership or sole proprietorship, respectively. All reports or other information submitted to the Secretary shall be signed and certified by a responsible official or a duly authorized representative. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above and submitted to the Secretary; and
2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.

The responsible official shall notify the Secretary if an authorization is no longer accurate. The new duly authorized representative must be designated prior to or together with any reports or information to be signed by a duly authorized representative.

4.3 Certification statement. In accordance with ARSD 74:36:04:15(10), all documents required by this permit, including application forms, reports, and compliance certification, must be certified by a responsible official or a duly authorized representative. The certification shall include the following statement:

> "I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this document and all attachments are true, accurate, and complete."

4.4 Record of wire reclamation furnace hours of operation. In accordance with ARSD 74:36:04:15(10), the owner or operator shall record the number of hours the wire reclamation furnace is operated each day. The hours shall be recorded from the continuous temperature recorder chart. The hours of operation begin when the primary burner is ignited and end when the afterburner is shut off.

4.5 Record of paint, primer, and solvent usage. In accordance with ARSD 74:36:04:15(10) and 74:28:23:01, the owner or operator shall maintain records of the amount of paint, primer, and solvent products used per month, the amount of waste generated per month, and a copy of the material safety data sheet (MSDS) for each of the products.

4.6 Record of hazardous air pollutant emissions. In accordance with ARSD 74:36:04:15(10), the owner or operator shall calculate the amount of hazardous air pollutants emitted each month. A 12-month rolling total shall be calculated every month using that month's value and the previous 11 months' values. The hazardous air pollutant emissions shall be based on the painting operations described as Unit #2, wire reclamation furnace operations, and any other operation that emits hazardous air pollutants into the ambient air.

The hazardous air pollutant emissions from the painting operation will be based on the amount of paint, primer, and solvent products used each month and the composition of the product based on the material safety data sheets, manufacturer supplied formulation data, EPA approved test method data, or a method approved by the Secretary. A list of hazardous air pollutants is included in Attachment A. The records will be used to determine compliance with permit condition 5.5.

Equation 4-1 shall be used to calculate the hydrogen chloride emissions per month from the wire reclamation furnace:

Equation 4-1 – Hydrogen Chloride Emission Calculations

$$E_{HCl} = 1.78 \frac{pounds}{hour} \times X \frac{hours}{month} \div 2{,}000 \frac{pounds}{ton}$$

Where: **X** = time spent, in hours per month, processing electrical equipment in the wire reclamation furnace; and

E_{HCl} = hydrogen chloride emissions (tons per month).

4.7 Operational records. In accordance with ARSD 74:27:08:15, 74:27:13:22, and 74:28:23:01, the owner or operator shall at a minimum, maintain the following records:

1. The amount of solid waste and/or hazardous waste ash generated each month;
2. An annual written estimate of the tonnage of electrical equipment processed;
3. Records of transfer of all ash, plastic, fluff, and other wastes containing PCBs or hazardous waste to an EPA and/or state approved facility that is permitted to accept the specific waste. These records shall include the shipping manifests;
4. Results of all sampling or testing conducted on site or on materials that have been stored on-site;
5. Documentation of any unauthorized waste found at the facility and any action taken;
6. Records of personnel training;
7. Records of any emergency conditions occurring at the facility that are related to the operating conditions of this permit;
8. Record of each spill and leak inspection required in permit condition 8.4. The records shall include the inspection date, person conducting the inspection, and if any spills or leaks were detected;
9. Documentation that Laboratory Quality Assurance/Quality Control (QA/QC) measures were followed and performed; and
10. Copies of this and any other permits required by state, local, or federal laws and regulations.

4.8 Closure notification. In accordance with ARSD 74:27:15:05, the owner or operator shall notify the Secretary in writing of the intent to close the facility at least 90 days prior to closure.

4.9 Reporting spills or leaks. The owner or operator shall report all leaks or spills within the building, in excess of 25 gallons of mineral oil, to the Secretary within 24 hours of detection. The owner or operator shall notify the Secretary of any spills or leaks occurring within the state which are subject to reporting under ARSD 74:34:01 -- Regulated Substance List and Reporting of Discharges, consistent with the terms stated therein.

4.10 Annual reporting. In accordance with ARSD 74:36:04:15(10), the owner or operator shall submit an annual report to the Secretary by the end of each annual period. The annual report shall contain the following information:

1. Name of facility, permit number, reference to this permit condition, identification of the submittal as an annual report, and calendar dates covered by the reporting period;
2. The hours the wire reclamation furnace was operated each month and the 12-month rolling total for each month within the reporting period;
3. The type and quantity of paints and solvents used during the reporting period that contain hazardous air pollutants;
4. The quantity of hazardous air pollutants emitted each month and the12-month rolling total for each month within the reporting period and supporting documentation; and
5. A copy of the material safety data sheet, manufacturer supplied formulation data, or EPA approved test method data for any product used at the facility during the reporting period that has not been previously submitted to the Secretary.

The annual report must be postmarked no later than 30 days after the end of the reporting period (January 30).

4.11 Reporting permit violations. In accordance with ARSD 74:36:04:15(10), the owner or operator shall report all permit violations. A permit violation should be reported as soon as possible, but no later than the first business day following the day the violation was discovered. The permit violation may be reported by telephone to the South Dakota Department of Environment and Natural Resources at (605) 773-3151, (605) 773-3153, or by FAX at (605) 773-5286.

A written report shall be submitted within five days of discovering the permit violation. Upon prior approval from the Secretary, the submittal deadline for the written report may be extended up to 30 days. The written report shall contain:

1. A description of the permit violation and its cause(s);
2. The duration of the permit violation, including exact dates and times; and
3. The steps taken or planned to reduce, eliminate, and prevent reoccurrence of the permit violation.

5.0 CONTROL OF REGULATED AIR POLLUTANTS

5.1 Visibility limit. In accordance with ARSD 74:36:12:01, the owner or operator may not discharge into the ambient air an air contaminant of a density equal to or greater than that designated as 20 percent opacity from any permitted unit, operation, or process listed in Table 1-1, unless otherwise specified in this permit. This provision does not apply when the presence of uncombined water is the only reason for failure to meet the requirement.

5.2 Visibility exceedances. In accordance with ARSD 74:36:12:02, an exceedance of the operating limit in permit condition 5.1 is not considered a violation during brief periods of soot blowing, start-up, shutdown, or malfunctions. A malfunction is described as any sudden and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. A failure caused entirely or in part by poor maintenance, careless operation, preventable equipment breakdown, or any other cause within the control of the owner or operator of the source is not a malfunction and is considered a violation.

5.3 Total suspended particulate matter limits. In accordance with ARSD 74:36:06:03(1), the owner or operator shall not allow the emission of total suspended particulate matter from the wire reclamation furnace in excess of 0.8 pounds per hour.

5.4 Sulfur dioxide limits. In accordance with ARSD 74:36:06:03(2), the owner or operator shall not allow the emission of sulfur dioxide from the wire reclamation furnace in excess of 3.0 pounds per million Btu of heat input to the unit. Compliance with the sulfur dioxide emission limit is based on a three-hour rolling average, which is the arithmetic average of three contiguous one-hour periods.

5.5 Hazardous air pollutant limit. In accordance with ARSD 74:36:04:15(9), the owner or operator shall limit the amount of hazardous air pollutants emitted from the facility to less than 9.5 tons per year of a single hazardous air pollutant or 23.8 tons per year of a combination of hazardous air pollutants during a 12-month rolling period.

5.6 Wire reclamation furnace – temperature limit. In accordance with ARSD 74:36:04:15(9), the owner or operator shall maintain a temperature at or greater than 1,800 degrees Fahrenheit in the afterburner chamber. The minimum temperature of 1,800 degrees Fahrenheit shall be maintained at all times during the operation of the wire reclamation furnace. This includes prior to igniting the batch load in the primary chamber and until all combustibles are completely combusted.

5.7 Residence time. In accordance with ARSD 74:36:04:15(9), the owner or operator shall maintain the exhaust gases in the afterburner chamber at or greater than 1,800 degrees Fahrenheit for a minimum residence time of two seconds. The thermocouple that measures the temperature in the afterburner chamber shall be located downstream of the burner at a distance that ensures the exhaust gases are maintained at or greater than 1,800 degrees Fahrenheit for a minimum of two seconds.

5.8 Circumvention not allowed. In accordance with ARSD 74:36:04:31, the owner or operator may not install, use a device, or use a means that conceals or dilutes an air emission that would otherwise violate this permit. This includes operating a unit or control device that emits air pollutants from an opening other than the designed stack, vent, or equivalent opening.

5.9 Minimizing emissions. In accordance with ARSD 74:36:04:15(9), the owner or operator shall at all time, when practicable, maintain and operate all permitted units in a manner that minimizes air pollution emissions.

6.0 PERFORMANCE TESTS

6.1 Performance test may be required. In accordance with ARSD 74:36:11:02, the secretary may request a performance test. A performance test shall be conducted while operating the unit at or greater than 90 percent of its maximum design capacity, unless otherwise specified by the Secretary. A performance test that is conducted while operating at less than 90 percent of its maximum design capacity will result in the operation being limited to the percent achieved during the performance test. The Secretary has the discretion to extend the deadline for completion of the performance test required by the Secretary if circumstances reasonably warrant but will not extend the deadline past a federally required performance test deadline.

6.2 Test methods and procedures. In accordance with ARSD 74:36:11:01, the owner or operator shall conduct the performance test in accordance with 40 CFR Part 60, Appendix A, 40 CFR Part 63, Appendix A, and 40 CFR Part 51, Appendix M. The Secretary may approve an alternative method if a performance test specified in 40 CFR Part 60, Appendix A, 40 CFR Part 63, Appendix A, and 40 CFR Part 51, Appendix M is not applicable or required.

6.3 Representative performance test. In accordance with ARSD 74:36:07:01, as referenced to 40 CFR § 60.8(c), performance tests shall be conducted under such conditions as the Secretary shall specify to the owner or operator based on the representative performance of the unit being tested. The owner or operator shall make available to the Secretary such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in this permit.

6.4 Submittal of test plan. In accordance with ARSD 74:36:11:01, the owner or operator shall submit the proposed testing procedures to the Secretary at least 30 days prior to any performance test. The Secretary will notify the owner or operator if the proposed test procedures are approved or denied. If the proposed test procedures are denied, the Secretary will provide written notification that outlines what needs to be completed for approval.

6.5 **Notification of test.** In accordance with ARSD 74:36:11:03, the owner or operator shall notify the Secretary at least 10 days prior to the start of a performance test to arrange for an agreeable test date when the Secretary may observe the test. The Secretary may extend the deadline for the performance test in order to accommodate schedules in arranging an agreeable test date.

6.6 **Performance test report.** In accordance with ARSD 74:36:04:15(10), the owner or operator shall submit a performance test report to the Secretary within 60 days after completing the performance test or by a date designated by the Secretary. The performance test report shall contain the following information:

1. A brief description of the process and the air pollution control system being tested;
2. Sampling location description(s);
3. A description of sampling and analytical procedures and any modifications to standard procedures;
4. Test results;
5. Quality assurance procedures and results;
6. Records of operating conditions during the test, preparation of standards, and calibration procedures;
7. Raw data sheets for field sampling and field and laboratory analyses;
8. Documentation of calculations;
9. All data recorded and used to establish parameters for compliance monitoring; and
10. Any other information required by the test method.

6.7 **Ash characterization.** In accordance with ARSD 74:27:08:15 and 74:28:23:01, the owner or operator shall maintain information on file to document waste characterization of furnace ash. This information may include, but not be limited to, product and process knowledge and/or test analyses representative of the waste stream. The owner or operator shall perform additional analysis of the ash waste stream when there is any change in the type of feed material. All analyses must be conducted in accordance with the methodologies specified in ARSD 74:28:22:01 and 40 CFR § 261.

6.8 **Used oil specification test.** Used oil burned in the wire reclamation furnace for energy recovery must be tested by the owner or operator to determine whether the oil contains less than fifty parts per million PCBs. The owner or operator may test or use other documentation to determine whether the oil is considered on or off specification used oil as found in ARSD 74:28:27:01(adopting by reference 40 CFR § 279).

7.0 CONTINUOUS MONITORING

7.1 **Wire reclamation furnace – continuously monitoring temperature.** In accordance with ARSD 74:36:04:15(10), the owner or operator shall install, calibrate, operate, and maintain a device that continuously monitors and records the temperature of the exhaust gases in the afterburner chamber. The thermocouple for the continuous monitoring device shall be located at

a distance that ensures the exhaust gases are maintained at 1,800 degrees Fahrenheit for a minimum of two seconds. The continuous monitoring device must have an accuracy of plus or minus 0.75 percent of the measured temperature or 36.5 degrees Fahrenheit, whichever is greater. The continuous monitoring device and recorder shall be operational prior to igniting the primary chamber and at least one hour after the afterburner is shut off.

If the continuous monitoring device or recording equipment is not functional for more than one hour, the owner or operator shall complete the batch cycle and discontinue using the wire reclamation furnace until the continuous monitor and recorder are operational.

8.0 OPERATIONAL REQUIREMENTS AND RESTRICTIONS

8.1 Acceptance of electrical equipment. The owner or operator shall comply with 40 CFR § 761 when accepting electrical equipment, for processing in the wire reclamation furnace, which contained or contains mineral oil with a PCB concentration. The owner or operator shall accept only undrained electrical equipment containing mineral oil with a PCB concentration less than 500 parts per million for processing in the wire reclamation furnace.

8.2 Electrical equipment containing equal or greater than 500 ppm PCBs. If the owner or operator accepts drained or undrained electrical equipment containing mineral oil with a PCB concentration equal to or greater than 500 parts per million, the owner or operator shall comply with the requirements in 40 CFR § 761.

8.3 Operational restrictions on wire reclamation furnace. The owner or operator shall process only drained electrical equipment, for thermal destruction and metal recovery, in the wire reclamation furnace. The owner or operator shall use only mineral oil that meets the requirements of on-specification used oil as defined in ARSD 74:28:27:01(adopting by reference 40 CFR § 279) and contains PCBs less than two parts per million or distillate oil to fuel the wire reclamation furnace.

8.4 Inspection for spills or leaks. In accordance with 40 CFR § 761.65(c)(5), the owner or operator shall inspect storage tanks and electrical equipment for leaks at least once every 30 days.

8.5 Disposal or recycling of waste and used mineral oil. In accordance with ARSD 74:27:08:15 and Chapter 74:28, the owner or operator shall dispose of or recycle the following materials contaminated with PCBs or determined to be hazardous waste at a facility approved by EPA and/or the state to accept such waste:

1. Ash from the wire reclamation;
2. Floor dry from transformer salvage process;
3. Other wastes containing PCBs or determined to be hazardous waste that may be generated at this facility;
4. All mineral oil containing two parts per million or greater PCBs; and

5. All mineral oil that does not meet the used oil specification requirement found in ARSD 74:28:27:01 (adopting by reference 40 CFR § 279).

8.6 Temporary storage of hazardous waste. In accordance with ARSD 74:28:23:01, wastes determined to be hazardous must be disposed of at a hazardous waste facility within a specified period of time. The temporary storage period is specific to the category of hazardous waste generator and is outlined below:

1. Large quantity generators must transport hazardous waste off-site in 90 days or less;
2. Small quantity generators must transport hazardous waste off-site in 180 days or less, or within 270 days if the waste must be transported over 200 miles. A small quantity generator may not accumulate more than or equal to 6,000 kilograms of hazardous waste at any one time;
3. Conditionally exempt generators are not required to transport hazardous waste off site by a certain period of time unless the generator accumulates 1,000 kilograms of hazardous waste at any one time. Once 1,000 kilograms have accumulated on-site, the temporary storage period for conditionally exempt generators becomes the same as a small quantity generator; and
4. All incinerated materials and ash must be placed in a sealed container during on-site transport in order to prevent unnecessary releases of ash into the environment.

8.7 Other hazardous waste and used oil requirements. A hazardous waste generator or an owner or operator that burns used oil for energy recovery shall comply with all the applicable hazardous waste generator and used oil requirements specified in ARSD 74:28, adopting by reference 40 CFR Parts 260 through 273 and 279, inclusive.

8.8 General safety. The owner or operator shall store, handle, and process all undrained electrical equipment in such a manner as to facilitate inspection and minimize fire hazards. All waste storage area access must be limited to authorized personnel.

8.9 Storage of electrical equipment. The owner or operator shall store undrained and drained electrical equipment in a manner that minimizes the impact on the environment.

9.0 FINANCIAL ASSURANCE

9.1 Financial assurance instrument for closure. In accordance with ARSD 74:27:16:01, the owner or operator shall have a financial assurance instrument for closure of the facility. The financial assurance instrument shall be established in accordance with SDCL 34A-6-1.12. The financial assurance amount shall be in an amount sufficient to:

1. Remove and properly dispose of the maximum amount of transformer core and coil assemblies stored on site for processing in the wire reclamation furnace;
2. Remove and properly dispose of the maximum amount of ash, at a properly permitted facility, that can be stored on-site; and

3. Hire a third party to adequately perform the tasks listed above.

9.2 <u>Adjusting financial assurance instrument for closure.</u> In accordance with ARSD 74:27:16:02, the owner or operator shall adjust the financial assurance amount if operational changes increase or reduce the maximum cost of items listed in permit condition 9.1 at any time during the operating life of this facility. At a minimum, the value of the financial assurance amount shall be adjusted every two years for inflation and disposal cost changes. The Secretary shall be notified in writing when financial assurance adjustments are made.

10.0 TITLE V AIR QUALITY PERMIT EXEMPTION

10.1 <u>Title V air quality permit exemption.</u> In accordance with ARSD 74:36:04:15(9), the owner or operator is exempt from needing a Title V air quality permit. The exemption is based on operational limits that maintain hazardous air pollutant emissions below the major source threshold under the Title V air quality permit program. Any relaxation in this permit that increases hazardous air pollutant emissions will require a modification to this permit and may require a Title V air quality permit before that change is initiated.

11.0 RECOMMENDATION

A review of this facility indicates it can operate in compliance with South Dakota's Air Pollution Control rules and the federal Clean Air Act. The Secretary, therefore, recommends that the Board of Minerals and Environment issue this operating permit with conditions to ensure compliance with SDCL 34A-1 and the federal Clean Air Act. Any questions pertaining to the Secretary's recommendation should be directed to Keith Gestring, Natural Resources Project Engineer, at (605) 677-6165.

Attachment A
List of Hazardous Air Pollutants

CAS number	Chemical name
75070	Acetaldehyde
60355	Acetamide
75058	Acetonitrile
98862	Acetophenone
53963	2-Acetylaminofluorene
107028	Acrolein
79061	Acrylamide
79107	Acrylic acid
107131	Acrylonitrile
107051	Allyl chloride
92671	4-Aminobiphenyl
62533	Aniline
90040	o-Anisidine
1332214	Asbestos
71432	Benzene (including benzene from gasoline)
92875	Benzidine
98077	Benzotrichloride
100447	Benzyl chloride
92524	Biphenyl
117817	Bis(2-ethylhexyl)phthalate (DEHP)
542881	Bis(chloromethyl)ether
75252	Bromoform
106990	1,3-Butadiene
156627	Calcium cyanamide
105602	Caprolactam
133062	Captan
63252	Carbaryl
75150	Carbon disulfide
56235	Carbon tetrachloride
463581	Carbonyl sulfide
120809	Catechol
133904	Chloramben
57749	Chlordane
7782505	Chlorine
79118	Chloroacetic acid
532274	2-Chloroacetophenone
108907	Chlorobenzene
510156	Chlorobenzilate
67663	Chloroform
107302	Chloromethyl methyl ether

CAS number	Chemical name
126998	Chloroprene
1319773	Cresols/Cresylic acid (isomers and mixtures)
95487	o-Cresol
108394	m-Cresol
106445	p-Cresol
98828	Cumene
94757	2,4-D, salts and esters
3547044	DDE
334883	Diazomethane
132649	Dibenzofurans
96128	1,2-Dibromo-3-chloropropane
84742	Dibutylphthalate
106467	1,4-Dichlorobenzene(p)
91941	3,3-Dichlorobenzidene
111444	Dichloroethyl ether (Bis(2-chloroethyl)ether)
542756	1,3-Dichloropropene
62737	Dichlorvos
111422	Diethanolamine
121697	N,N-Diethyl aniline (N,N-Dimethylaniline)
64675	Diethyl sulfate
119904	3,3-Dimethoxybenzidine
60117	Dimethyl aminoazobenzene
119937	3,3'-Dimethyl benzidine
79447	Dimethyl carbamoyl chloride
68122	Dimethyl formamide
57147	1,1-Dimethyl hydrazine
131113	Dimethyl phthalate
77781	Dimethyl sulfate
534521	4,6-Dinitro-o-cresol, and salts
51285	2,4-Dinitrophenol
121142	2,4-Dinitrotoluene
123911	1,4-Dioxane (1,4-Diethyleneoxide)
122667	1,2-Diphenylhydrazine
106898	Epichlorohydrin (l-Chloro-2,3-epoxypropane)
106887	1,2-Epoxybutane
140885	Ethyl acrylate
100414	Ethyl benzene
51796	Ethyl carbamate (Urethane)
75003	Ethyl chloride (Chloroethane)
106934	Ethylene dibromide (Dibromoethane)
107062	Ethylene dichloride (1,2-Dichloroethane)
107211	Ethylene glycol
151564	Ethylene imine (Aziridine)

CAS number	Chemical name
75218	Ethylene oxide
96457	Ethylene thiourea
75343	Ethylidene dichloride (1,1-Dichloroethane)
50000	Formaldehyde
76448	Heptachlor
118741	Hexachlorobenzene
87683	Hexachlorobutadiene
77474	Hexachlorocyclopentadiene
67721	Hexachloroethane
822060	Hexamethylene-1,6-diisocyanate
680319	Hexamethylphosphoramide
110543	Hexane
302012	Hydrazine
7647010	Hydrochloric acid
7664393	Hydrogen fluoride (Hydrofluoric acid)
123319	Hydroquinone
78591	Isophorone
58899	Lindane (all isomers)
108316	Maleic anhydride
67561	Methanol
72435	Methoxychlor
74839	Methyl bromide (Bromomethane)
74873	Methyl chloride (Chloromethane)
71556	Methyl chloroform (1,1,1-Trichloroethane)
78933	Methyl ethyl ketone (2-Butanone)
60344	Methyl hydrazine
74884	Methyl iodide (Iodomethane)
108101	Methyl isobutyl ketone (Hexone)
624839	Methyl isocyanate
80626	Methyl methacrylate
1634044	Methyl tert butyl ether
101144	4,4-Methylene bis(2-chloroaniline)
75092	Methylene chloride (Dichloromethane)
101688	Methylene diphenyl diisocyanate (MDI)
101779	4,4'-Methylenedianiline
91203	Naphthalene
98953	Nitrobenzene
92933	4-Nitrobiphenyl
100027	4-Nitrophenol
79469	2-Nitropropane
684935	N-Nitroso-N-methylurea
62759	N-Nitrosodimethylamine
59892	N-Nitrosomorpholine

CAS number	Chemical name
56382	Parathion
82688	Pentachloronitrobenzene (Quintobenzene)
87865	Pentachlorophenol
108952	Phenol
106503	p-Phenylenediamine
75445	Phosgene
7803512	Phosphine
7723140	Phosphorus
85449	Phthalic anhydride
1336363	Polychlorinated biphenyls (Aroclors)
1120714	1,3-Propane sultone
57578	beta-Propiolactone
123386	Propionaldehyde
114261	Propoxur (Baygon)
78875	Propylene dichloride (1,2-Dichloropropane)
75569	Propylene oxide
75558	1,2-Propylenimine (2-Methyl aziridine)
91225	Quinoline
106514	Quinone
100425	Styrene
96093	Styrene oxide
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin
79345	1,1,2,2-Tetrachloroethane
127184	Tetrachloroethylene (Perchloroethylene)
7550450	Titanium tetrachloride
108883	Toluene
95807	2,4-Toluene diamine
584849	2,4-Toluene diisocyanate
95534	o-Toluidine
8001352	Toxaphene (chlorinated camphene)
120821	1,2,4-Trichlorobenzene
79005	1,1,2-Trichloroethane
79016	Trichloroethylene
95954	2,4,5-Trichlorophenol
88062	2,4,6-Trichlorophenol
121448	Triethylamine
1582098	Trifluralin
540841	2,2,4-Trimethylpentane
108054	Vinyl acetate
593602	Vinyl bromide
75014	Vinyl chloride
75354	Vinylidene chloride (1,1-Dichloroethylene)
1330207	Xylenes (isomers and mixture)

CAS number	Chemical name
95476	o-Xylenes
108383	m-Xylenes
106423	p-Xylenes
	Antimony Compounds
	Arsenic Compounds (inorganic including arsine)
	Beryllium Compounds
	Cadmium Compounds
	Chromium Compounds
	Cobalt Compounds
	Coke Oven Emissions
	Cyanide Compounds[1]
	Glycol ethers[2]
	Lead Compounds
	Manganese Compounds
	Mercury Compounds
	Fine mineral fibers[3]
	Nickel Compounds
	Polycylic Organic Matter[4]
	Radionuclides (including radon)[5]
	Selenium Compounds

Note: For all listings above which contain the word "compounds" and for glycol ethers, the following applies: Unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chemical (i.e., antimony, arsenic, etc.) as part of that chemical's infrastructure.

[1] – X'CN where X = H' or any other group where a formal dissociation may occur. For example KCN or $Ca(CN)_2$

[2] – Includes mono- and di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-$(OCH2CH2)_n$ -OR' where

n = 1, 2, or 3

R = alkyl or aryl groups

R' = R, H, or groups which, when removed, yield glycol ethers with the structure: R-$(OCH2CH)_n$-OH. Polymers are excluded from the glycol category.

[3] – Includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.

[4] – Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100 °C.

[5] – A type of atom which spontaneously undergoes radioactive decay.

Attachment B
Variance Approved
T & R Service Company – Resource Recovery Facility

The DENR-WMP specifically recognizes and approves the following variance with the conditions as listed below:

- Regulatory Reference ARSD 74:27:11:05 - Distance to residences, other buildings, and roads

- State solid waste rules specify that restricted use facilities may not be located within 1,000 feet of an occupied dwelling, school, hospital, interstate or primary road right-of-way, or public park or recreation area. The location may not pose a safety hazard to the public.

- State rules allow a variance for solid waste sites provided the facility is operated in a manner that will not threaten homes, other buildings, roads (visibility), or human health or safety.

- The T & R Service Company's Resource Recovery Facility is located on the north side of Highway 34 and within 1,000 feet of an interstate or improved highway and within 1,000 ft of an occupied dwelling. The operator has demonstrated an ability to operate the facility in a manner that is acceptable. Further, the operational and design requirements of this permit are specifically designed to ensure that operation of the facility will not pose a threat.

- The operator shall comply with the conditions of this permit.